

## Cellular Respiration Quiz Review

Cellular Respiration is a process that generates \_\_\_\_\_ for organisms to use as an energy source for most other biochemical reactions. Although all organisms use this process, \_\_\_\_\_ would use it more in cold temperatures leading to a \_\_\_\_\_ metabolic rate while \_\_\_\_\_ would use it less in cold temperatures leading to a \_\_\_\_\_ metabolic rate.

The first phase is called \_\_\_\_\_ which breaks down the sugar \_\_\_\_\_ into \_\_\_\_\_ in the cell \_\_\_\_\_ (location). The electron carrier known as \_\_\_\_\_ gets produced as well as a small quantity of ATP by \_\_\_\_\_ phosphorylation.

The second phase is called the \_\_\_\_\_ and occurs in the \_\_\_\_\_ of an organelle called the \_\_\_\_\_. The \_\_\_\_\_ from glycolysis gets converted to \_\_\_\_\_ and incorporated into the cycle. The electron carriers \_\_\_\_\_ & \_\_\_\_\_ get produced along with the gas \_\_\_\_\_ and a small quantity of \_\_\_\_\_ made by \_\_\_\_\_ phosphorylation.

The final phase involves an ETC in which the electrons from \_\_\_\_\_ & \_\_\_\_\_ are used to create a \_\_\_\_\_ gradient in which \_\_\_\_\_ ions are pumped from the \_\_\_\_\_ into the \_\_\_\_\_. This high concentration of  $H^+$  ions makes the intermembrane space a very \_\_\_\_\_ environment; however, this  $H^+$  gradient will allow the  $H^+$  to diffuse through the enzyme \_\_\_\_\_ in a process called

\_\_\_\_\_. As chemiosmosis occurs, ATP synthase will bond P & ADP to form many \_\_\_\_\_. Because the energy for this type of ATP synthesis ultimately came from oxidizing molecules, it is called \_\_\_\_\_ phosphorylation.

The electrons from the electron carriers will finally combine with \_\_\_\_\_ to form \_\_\_\_\_ during aerobic respiration; however, under anaerobic conditions, the process of \_\_\_\_\_ occurs and produces either \_\_\_\_\_ or \_\_\_\_\_ acid.